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**The
Beautifying
of
Honolulu**

**By
Charles
Mulford
Robinson**

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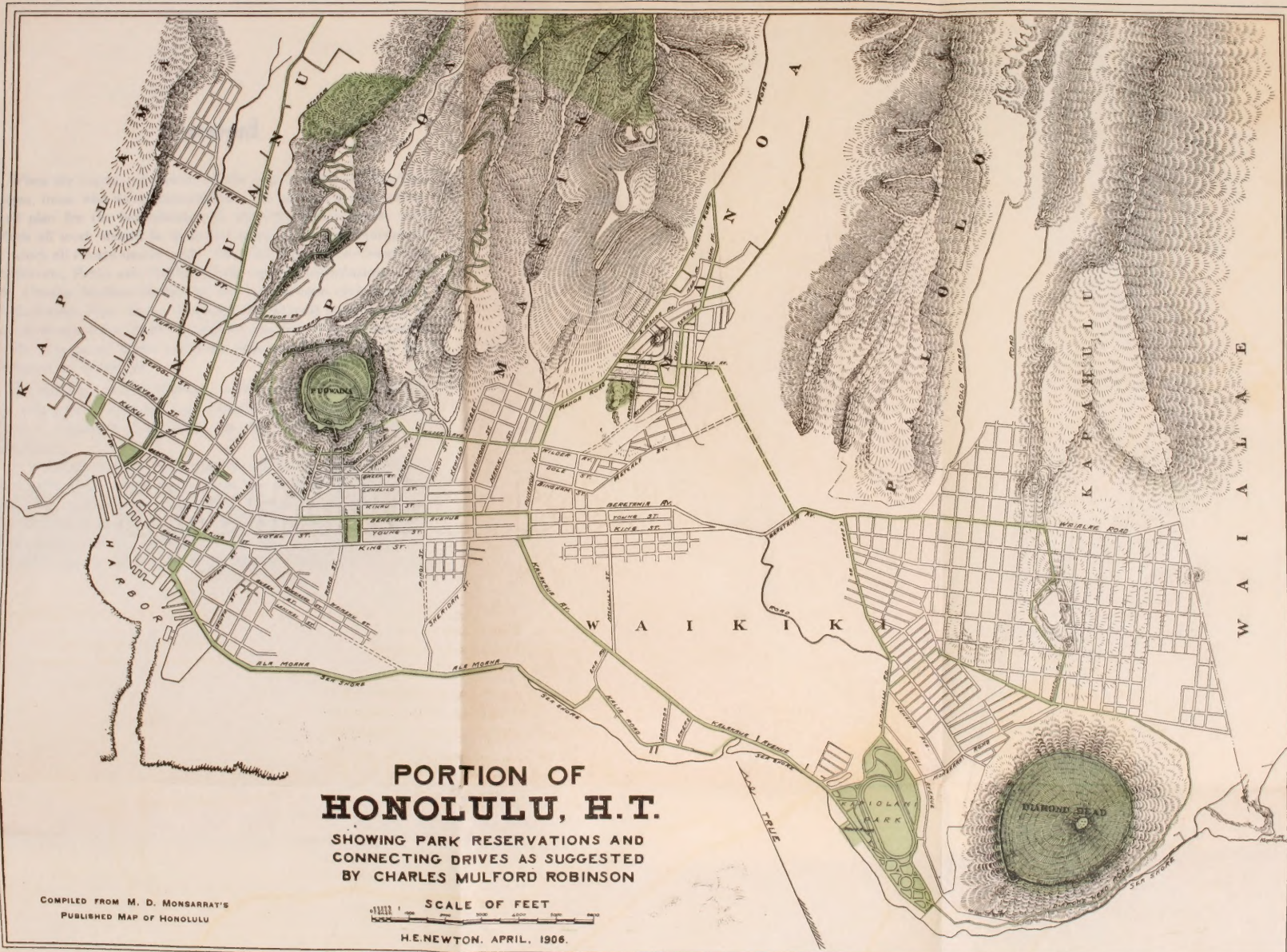
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COMPILED FROM M. D. MONSARRAT'S
PUBLISHED MAP OF HONOLULU



Foreword

When the recent movement for the improvement of Honolulu began, those who were interested saw the need of a well considered plan for the beautification of the City in accordance with which all work should be done and towards the accomplishment of which all efforts should tend. The Civic Federation Committee on Streets, Parks and Public Works opened negotiations with Mr. Charles Mulford Robinson, the well known civic adviser, of Rochester, New York. Through the interest and activity of the chairman of the Road Committee, the Board of Supervisors of the County of Oahu made an appropriation to bring Mr. Robinson to Honolulu.

Mr. Robinson arrived February 19th, 1906. His report, which met with general approval, was published by the Board of Supervisors in pamphlet form under the title, "The Beautifying of Honolulu."

As it is believed that this report should be the basis of all improvement work in the City, and as the original edition of 500 copies has been exhausted, the Civic Federation has printed for free distribution a second edition. Except for some slight changes in the maps and the addition of this foreword and a table of contents, the second edition is practically a reprint of the first.

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The Improvement of Honolulu

BY CHARLES MULFORD ROBINSON

To the Honorable The Board of Supervisors, County of Oahu,
Hawaii Territory.

Gentlemen:—In accordance with your request, I have examined the city of Honolulu and its immediately tributary country, with a view to making recommendations and suggestions for its improvement. I understand that in making recommendations which may be called practicable, I am not restricted to the immediately possible, but am asked to lay down a plan for the county to work toward in the years to come. The idea, I take it, is to accomplish at once so much as may be, making sure the while that each step, however little, counts in the right direction, toward the realization of a complete and systematic scheme.

The word "improvement" I do not interpret as meaning an attempt to enhance the extraordinary natural beauty that has been spread around you, but the increase of its accessibility and the silencing of jarring notes. My errand is not to "paint the lily"—that cannot successfully be done; but, rather, to facilitate the enjoyment of it. For this reason, I find the special emphasis in my report appearing very naturally on your parks and drives. But before coming to specific recommendations, there are certain general considerations that I desire to call to your attention and that are to be regarded as a part of the report.

GENERAL CONSIDERATIONS.

Among these I might fittingly, and pleasantly, include a discussion of the future of Honolulu, as the playground of the

well-to-do and the popular stopping point for the tourist travel that is to flow in growing volume across the Pacific. This, however, seems to have been pretty fully done by others; and it is much more necessary for you to take thought of the means by which you will command such good fortune, through proving worthy of it, than to expend your time and mine in prophecy as to what will happen if you do make yourselves so attractive that no one will want to pass you by without a visit and that many will come to see these islands only. In these considerations, also, the appeal is to commercial motives. It should be higher. When all is said, whatever development is given to Honolulu and to its surrounding country, should be first of all for the comfort and enjoyment of its own citizens. They pay the bills, they live—instead of visiting—here, and in suggesting improvements for Honolulu we have to consider what will improve it for them, make it better worth living in, add to the comfort and the pleasure in life of its own citizens. If we make the city more beautiful to them, adding to their contentment and happiness, we shall also make it more attractive to strangers. For a town is not like a picture, simply to be looked at and admired; it is to be lived in, and loved; and the more lovable it is the more people will come to it.

The lovable quality is personality. The home is attractive, however modest its cost, that expresses personality. So the town, which is the home of many, must have an individuality in keeping with its citizens, and must express it, if it is to please them and to attract others. And towns do have individuality. There never have been two cities just alike, and he would be a ruthless iconoclast who would try to pattern one city after another. We must preserve the individuality of Honolulu, or its charm will depart. Cut through broad avenues and boulevards, build a hot and sunny quay, widen your streets and straighten them, spend enough money in such measures hopelessly to bankrupt the city, and when the work is all done the winsomeness of Honolulu will have departed, and it will always be spoken of as the town that was

spoiled. So my first charge is, be true to yourselves. Do not dream of what other cities may have done; but, far isolated from them, develop your own individuality, be Hawaiian, be a more beautiful Honolulu. Then you will have distinction, and only then.

DIVISIONS OF THE REPORT.

Now, in considering the city, we think of it under the following heads: The business section; the residence streets; the city's entrances, at the railroad station and the waterfront; the official center, at Union (formerly Palace) Square; the boulevards and parks, that are now and that ought to be; the children's playgrounds; the drives. I shall try to group my recommendations and suggestions under these heads.

I. THE STREETS.

a. Their Plan.

The basic consideration, in thinking of the business and residence sections, is the street plan. It is clear that in the older Honolulu the streets were narrow and winding, making many a graceful curve and meeting at other than right angles. In all this there was a certain appropriateness; the narrow streets were shadier and cooler than broader thoroughfares could be, there was time enough, and there was no great volume of travel. The streets were suited to the place, were beautiful, and imparted an air of repose and of restful deliberation that could not fail to be full of charm to visitors, and that must have been a source of subconscious gratification to the residents. As far as possible you must retain this character. The needs of a growing traffic and the influx of an impatient race compel modifications here and there. Many a street has already been broadened and straightened, that business and getting about may be facilitated; but never has this been done without a loss of charm. The construction of a city must, indeed, be designed to facilitate the transaction of its business;

but what is the business of Honolulu? Yours is not, and does not aspire to be, an industrial or a great commercial or financial city; it is that rare thing, a city of delight, seeking to give leisure and pleasure; flaunting, not volumes of black smoke, but green hills and blue seas, the rainbow and the palm. And if your business is to give pleasure and to be beautiful, you can afford in unwonted measure to be conservative about changes; to shun the "checker-board plan" as you would the plague, and to retain the narrow, winding streets. You asked me to come to suggest changes and improvements, and you will not perhaps be satisfied that my most urgent appeal to you should be a retention of the old. But I am sure I am right. Be yourselves. Let all the improvements be a development, not a remaking, of the old.

b. The Trees.

Coming to the treatment of these older streets—or streets of the old time character, whatever their age—that are not to be widened, there is little chance for tree planting on the very narrow walk, and I think it would be a sad mistake to attempt it. Let the trees be, as so frequently now, inside the lot line, shading the walk by throwing over it the protection of the garden. In such planting that uniformity which is so desirable in the setting out of street trees will be difficult to obtain, but it will be less essential to success. Better, in such streets, walks shaded by various kinds of garden trees than walks lined by a uniform street tree. On the newer and broader streets, where trees are planted between curb and walk, it is important that there be a uniformity in the planting. Whatever the number of improvement clubs on any street, they must get together on the tree question and see that only one kind of tree is used in the street planting of that particular thoroughfare. The civic unit is not the club, but the street.

c. Signs.

In the business section of Honolulu I think there are more signs projecting over the sidewalks from the buildings than in any other city I ever visited. As you probably know, these have been abolished in San Francisco through the voluntary action of the Merchants' Association, which secured the adoption of an ordinance prohibiting them. They are of little value when everybody has them, they interrupt the views—often very fine on your streets—they detract from the dignity of the way, and are of some danger.

d. Poles.

On all the streets, but first on business streets, the poles ought to come down. Bad anywhere, these are ten times worse here, adding to their usual disfigurement of the streets a shock of newness and commonplaceness. A desirable arrangement would be the construction of a municipal (or county) conduit, and the requirement that as fast as a section is finished, the wires go into it—the companies paying an annual rental that would take care of interest and repairs and provide a sinking fund. If this can not be accomplished, a legislative enactment by your board, requiring the companies to put their wires under ground at the rate of a certain reasonable number of miles each year would inflict no unjust hardship upon them, and by degrees would rid the streets of the poles. One or other of these courses has been adopted by most of the progressive cities of the States. An incidental but very important advantage of ridding residential streets of wires and poles will be the rescue of the trees from mutilation by linemen. As long as the trees are subjected to this danger, it is incumbent upon your board to guard them as carefully as may be. I understand that the law now does this fairly well, but your ordinances must be enforced.

e. Fences.

The front fences, though a distinctive mark of the old Honolulu, ought to go. With the beautiful hedges you have here, a street fence, and even a division fence between street and building line, is very like an affront. If the improvement clubs that desire a more beautiful Honolulu would work for the taking down of the wooden fences on the streets, much would be accomplished.

f. Private Gardens.

The planting in the gardens of the city house-lots is little of it good, the grounds being generally very "spotty" in a multitude of isolated specimens, and frequently much too full. There is need of teaching here, where a tropical jungle is so often attempted on a small lot, the gospel of the beauty of an open lawn, with the planting put around its borders, where it will take a waving outline, with cool, mysterious bays and daring projections. Innumerable avenues, too, of royal palms have been weakened and shorn of half their majesty by the curve. No tree is statelier, more formal and architectural than this, and an avenue of it should be straight, with an adequate accent at its end.

g. Plans for New Streets.

On the newer, straighter, broader residential streets, a mistake has been made in retaining the narrow walk of the older streets, for the thoroughfare becomes neither one thing nor the other. It has not the charm of the lane, and it certainly is not an up-to-date street of its kind. If there are going to be residential streets laid out on the modern method—sixty to eighty feet between lot lines, well paved and straight—and no doubt with the large number of American residents who are accustomed to this and nothing else, there is a sufficient demand to justify them—the streets should be the best of their sort. An attractive type of such street sixty feet between

lot lines, would have the following divisions: Between lot line and walk, three feet, in turf; the walk, six feet; walk to curb, ten feet, in turf, with the street trees, and sometimes further ornamented by low shrubs and flowers; the roadway, twenty-two feet. This, of course, is a street without a car line. On a residential street eighty feet between lot lines, the same measurements for walks and parking leave an additional twenty feet between the curbs, which gives room for a double car track in the center. It is an unusual residential street on which the traffic requires, if there be no car track, more than a twenty-two foot roadway; and as soon as the required width is passed there is a needless expense in maintenance, an unnecessary area for the creation of dust, and an uncalled for sacrifice of attractiveness. Nor is the "parking," as it is called, between walk and curb of æsthetic value only. In the ten-foot strip the trees have a better chance, their roots are unlikely to injure walk or road, and the division of walk from road saves the pedestrian from not a little dust and from spattering by mud. As the city grows, and such streets as these are laid out or extended in the newer districts, in response to a demand for the conventional American residential street, let them have these proportions. But disturb the older part of Honolulu as little as may be, and impose this ordinary type of thoroughfare on no wider area than necessary. In fact, in the development of suburban tracts, I would like to see some developed with the old lines, which are the lines also of the English towns that have been always so much more picturesque than the American, and the lines that are fitted to the natural barriers offered by the curving hills and to the irregular contour of the ground.

h. Street Intersections.

Here and there in the city the juncture of diagonal streets has created at the place of meeting a wide space. An example of this is offered at the conjunction of Alapai, Kinau and Lunalilo. At such points the excess space at the center should

be parked. A circle or triangle, as the case may be, can be established here, curbed and filled with good earth. This can be planted to grass, and with a tall palm in the center it will become a very attractive feature in the street plan, extending its effect far up and down the abutting streets. In Washington such spaces are frequently occupied by sculpture; a fountain is always attractive, and thus the treatment may vary at different points; but the palm or a flowering tree would seem at once the easiest and most appropriate here.

i. Opening of New Tracts and Thoroughfares.

Before closing this discussion of the streets, I wish to touch upon the opening of new tracts and thoroughfares, though I shall do it briefly, as this has only indirect bearing on the beautifying of the city. Mr. Pinkham's plan for the reclamation of the McCully tract is most elaborate, and doubtless from a sanitary point of view is very desirable. It would appear only a matter of time before the city would have to undertake some such measures for at least the greater part of the area included in the scheme; but whether there is now a large enough demand for new residential property to repay the considerable cost of such improvement, or whether the sanitary need is such as to justify a large outlay without prompt reimbursement, are matters that I shall not attempt to consider. But whenever such a plan is undertaken, I would advise a remodeling of the street plotting as put down on the Pinkham plan. In developing such a virgin tract, designed for high class residences, and prominently located, it would be a pity to impose a gridiron street plan, where the curve of beach and lagoon—the dominating topographical features—cry out for curving streets, as at once more attractive, more appropriate, and probably more economical in the utilization of the space. A new thoroughfare, running diagonally from Beckwith street to the College Hills tract, east of the rocky ledge and parallel to the general direction of Manoa road, would be of value to Manoa valley in its provision of a second means of entrance.

of a short cut, and of a street without car tracks. In this region also a plan to build a road running diagonally across the valley, from Kaala avenue to Beretania street near the bridge, so giving to the park and Diamond Head road connection with this valley, has my hearty approval. The prolongation of Waikiki road to Beretania street would prove a convenience to many in its shortening of distances, would relieve King street, and would make readily available for carriages and automobiles a thoroughfare (Young street) into town that is unbroken by car tracks. Young street itself could be so carried through Thomas square, by double narrow drives, circling around the middle plot as not to detract from the park-like effect that such a square should have. Since Waikiki road and its extensions are having development as "the" boulevard of the city they are entitled to such improved connection with the town. The proximity of Pauoa Valley would seem to invite its opening for residences, and a scenic need throughout the district adjacent to Honolulu, since we are dealing not with the work of one year but with that which may be spread over many, is the construction of such additional roads in each of the valleys as to provide circular, or loop, drives that will open to view the beauty of the valleys and make it unnecessary to retrace one's steps on the same road. To this matter I shall refer again in considering your parks and drives. The extension of Allen street along the waterfront to connect with Queen, if practicable and not too costly, would seem a logical and desirable step, that there may be an unbroken public way along the docks.

2. FOCAL POINTS.

The focal points of the city's activity may now properly receive consideration.

a. The Railroad Station.

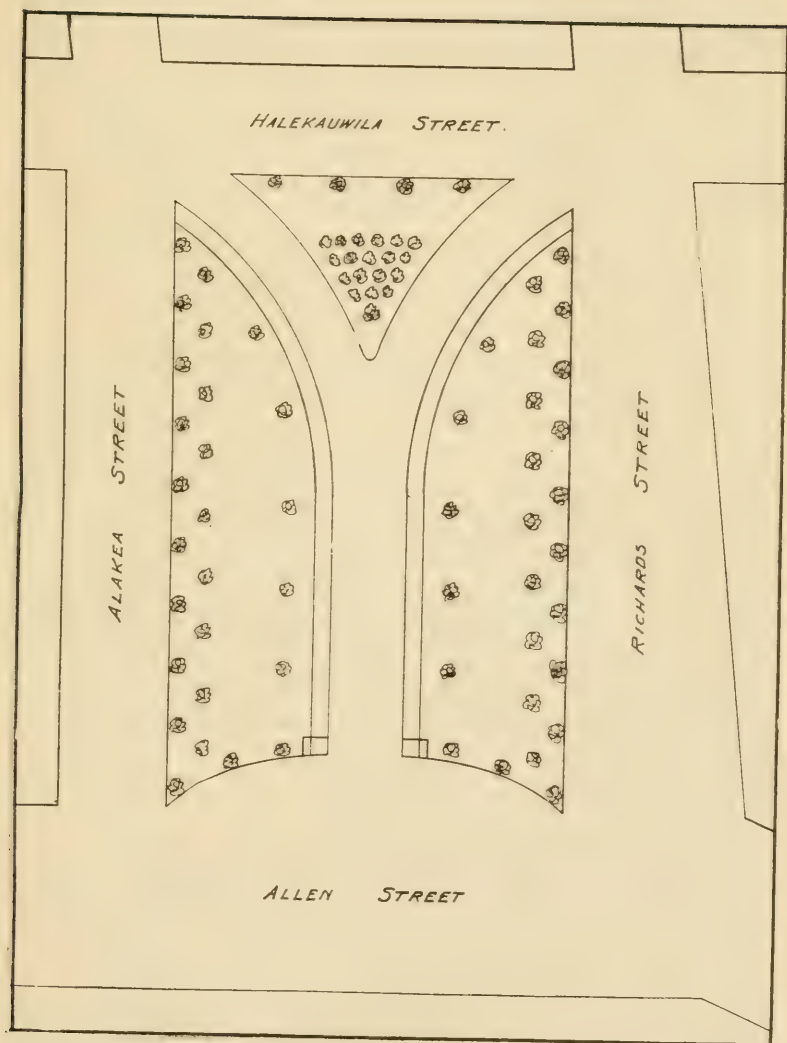
The railroad station, which in most communities is of prime importance as the main point of entrance and egress, is here

altogether overshadowed by the greater significance of the water gate. An advantage of this is the opportunity thus given for a concentration of attention upon the development of the latter. But it will not do to neglect entirely any focus of the city, and I find the railroad station and its main approach receiving, through the enterprise of the interested company, commendable attention and treatment.

b. The Water Entrance.

To the water entrance I have given much thought. The big new slips, which will establish the location of this entrance as far as most passengers are concerned, extend for the present east of Alakea street and reach to Allen. Almost ideally located in front of this site is a block of ground occupied by the old fish market, now practically abandoned, but public property to be developed as seems best. Here, then, is the place to create that formal and attractive entrance to the city that shall insure a good first and last impression to travelers and make for residents a pleasanter means of access to the docks than any now possessed.

The block is bounded by Alakea, Queen, Richards and Allen streets and is 350 feet long by some 230 feet wide. I append a print showing the plan I have worked out for it. The plot's Allen street line is set back at the middle, or entrance, point thirty feet, and then is carried out to the street line at either end in a curve. The purpose of this is to give greater space to traffic at the point where this most converges and incidentally to emphasize the invitation of the open space behind, as a straight line—shutting it off like private property—would fail to do. On the broad curving walks that follow these arcs to the entrance at the center, I would have the sellers of leis. The position would be an equally convenient and happy one for them and for the public. At the entrance, seventy feet wide, I recommend a tall and handsome gateway—the architectural achievement of the city. This might take the form either of pylons, or, as a more familiar type of gate with a



SUGGESTED WATER-FRONT ENTRANCES FOR HONOLULU.

BY CHARLES MULFORD ROBINSON, 1906.

Prepared from Plan in the Office of the Survey Department.

connecting bridge above the road, provide a place for the band, where it would be out of the way and where its music would carry easily to the upper decks of the arriving or departing steamer. In the construction or ornament of this gate the word "Aloha" might well be incorporated. Beyond the entrance there would stretch a forty-five foot road, with an eight foot walk on either side of it, separated from the road by four and a half feet of turf.

Passing through the gate, which would give an unusually imposing entrance to the city, the road and walks lead straight away to a point 100 feet from the further end. Here they fork, proceeding by long curves to the two corners, and so connecting with Alakea and Richards streets. At the crotch of the fork, terminating the vista of the road, there should gradually rise a bank of tropical foliage: at the base, low ferns, midway higher the oleander, far back the banana, and back of all the tall palms. Outlining the arcs at the front of the plot should be the royal palm. At the sides the ironwoods, already planted and well grown, may remain, and in front of them date palms. Overhanging the walks, the algaroba will give a pleasant shade and yet be so low as not to screen the trees beyond. Thus the entrance to Honolulu would be, as it ought to be, through a garden. In adopting the suggested treatment, Alakea and Richards streets would carry all the heavy traffic, an ordinance restricting the use of the parkway to passenger vehicles.

An opportunity for a waterfront park near this point, further to enhance the attractiveness of the entrance, is offered by the lots makai side of Allen street, from Alakea to Kekua-naoa, and to Fort if a new Custom House is erected on another site. In time this land may be needed for additional large slips, but that is not likely to be soon, and meanwhile they would easily make a very attractive harbor park, a pleasant sight to travelers, but of still more importance to Honolulu residents. Considering the central location of this park, the fascination of the busy shipping scenes that it would offer, and the improvement that its existence would effect, it would

be abundantly worth its cost. If the park were made here, it should have a bandstand. The whole situation at this strategic point is one of unusual good fortune, and your board is to be congratulated on its opportunity to carry out a very striking, valuable and memorable bit of public work.

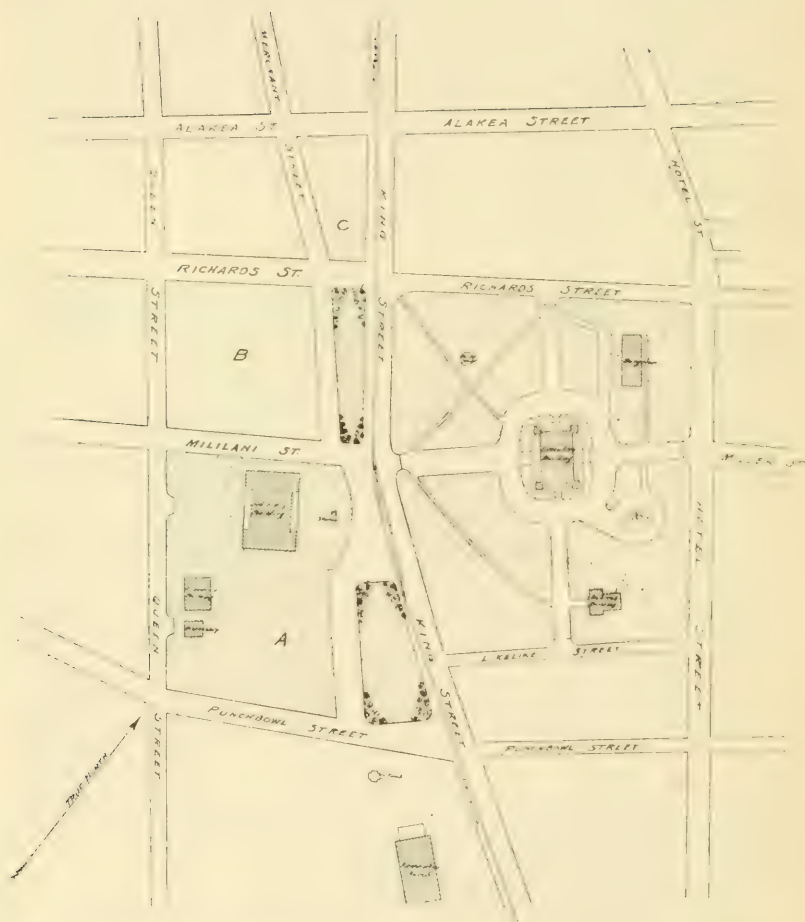
Were such plans executed, a convenient and noble site for the new Custom House would be found in the plot between Alakea, Allen and Kilauea streets, with the park outlook on front and side; or on Richards street.

c. Union Square.

I come now to the third focal point of the city: the administrative, or official center, well established at Union (formerly Palace) square.

Few cities of the United States are so fortunate as Honolulu in an early grouping of public buildings around a single open space. At once for its present significance, for its growing importance as official business becomes larger, and for its past, which can not fail to have increasing historical interest as times goes on, this center demands careful and worthy development. It demands it the more because its present irregularities, its sunny waste at one end, its jumbled aspect as to the location of buildings, and the general air of shabbiness imparted by the grounds around the Judiciary structure, now give an unpleasant impression where the effect should be orderly and fine. In remodeling this space I have been desirous of trespassing as little as possible on former conditions, and of emphasizing the historical significance of the center while securing the desired effect.

As a part of my report I append a blue print showing the plan worked out. Its principal features are the freedom from molestation of the area occupied by the grounds of the executive building, or Old Palace; the bringing into the scheme of the Kawaiahao Church; the removal of the Opera House from its present site, and of the garage on the makai side of King street; the purchase for these purposes of a little land;



SUGGESTED IMPROVEMENT OF UNION SQUARE AND ITS
APPROACHES, HONOLULU, OAHU.

BY CHARLES MULFORD ROBINSON, 1906.

Prepared from Plan in the Office of the Survey Department.

the provision of a choice of three good sites for the Post-office, and of a new site for the Opera House: the utilization of the waste space in the street.

In more detail, the plans contemplate the purchase of the strip between the grounds of the Judiciary building and Punchbowl street, and of that triangle between Richards and Mililani streets of which the site of the present Opera House forms the Waikiki and larger end. It is singular that by the acquisition of such a little land so large an effect can be secured at so important a point, and Honolulu may well congratulate itself on this second opportunity. Clearing the space thus secured, Kawaiahao church is opened to view from Union square and becomes, as it ought to be, one of the group of historical structures gathered there. A new street, centering on the statue of King Kamehameha I., with that closing the vista at one end and the Lunalilo tomb plainly in view at the other, gives a more direct access to Punchbowl street, and leaves between itself and King street a plot to be parked with turf and low shrubs, the switch of the street railroad company having provision made for it in front of the Judiciary building. Corresponding with this street, on the other side of the statue, a street gives direct connection with Merchant street, opens an attractive vista, and leaves a plot between itself and King that, similarly, will be parked with turf and low shrubs. These new "streets" are more accurately double roadways for King street, making provision for any increase of traffic at this point in the years to come and giving to King street through this, its official or state section, the character of a broad parked street.

As to the Postoffice, it is clear that the new structure should be added to the group of public buildings, thus adding to its own dignity as well as to the effectiveness of the square. Three sites are suggested. Site "A" would be my first choice considered from the æsthetic standpoint, and because site "C" would then be left available for the Opera House, so adding another public structure to the group and giving to it a site open to the street on three sides—a desirable consideration in

planning fire exits to a theater. Site "C" would be my second choice for the Postoffice, as the position is one of great prominence and æsthetic importance to the square. It is also more convenient for the city's business section. Site "B" also would be admirable, especially if it should be possible to obtain all the block, placing the Postoffice on a line with the Judiciary building and, like each of the other official structures, in a little park of its own—an arrangement lovely in itself and of especial appropriateness here. Incidentally it may be observed that in urging one of these sites for the new Postoffice, the large æsthetic gain is secured with no loss of convenience to business, and with an even greater proximity to the docks, to the government offices and to the hotels.

It should also be observed that the proposed development of Union square, for the enhancement of its beauty and dignity, brings this improvement within two short blocks of the waterfront improvement, and on the direct line to the residential and hotel district, so adding very markedly to the favorable and abiding first impression of entering travelers. If, now, the Custom House should also be located on Richards street, as suggested further back—either between Queen and Merchant streets, where, flanking sites "B" and "C," it would come into the group plan; or on the other side of Richards street, between Queen and Halekauwila—these two focal points, the waterfront and official center, would be brought yet closer together, with impressive and exceptionally fine effect. In fact, what other port would have so striking an entrance? As to convenience, the Richards street sites really are equally near to merchants and to docks, barring only the wharf of the Oceanic Steamship Company, as is the present location.

The development recommended for these centers of activity, though so marked as to be almost radical, is sorely needed at each point and at each point is made, as I believe, with due respect for the past and for Honolulu traditions, and to the emphasizing rather than to the jeopardizing of the city's charm.

3. THE PARKS.

I shall consider the parks before discussing drives and boulevards, because the purpose of the latter is mainly to connect and give access to the public reservations.

Parks are of many different kinds, having different purposes, and a well-developed city can no more get along with one kind of park than with one kind of street. There should be the public pleasure grounds; the scenic reservations for the contemplation of nature, where games and sports would be out of place; the ornamental squares; the playgrounds for children; the public gardens that are like oases in crowded parts of the community.

a. Kapiolani.

In Honolulu the principal park is Kapiolani. It is situated on a sandy plain, and in this city of views is itself without one, save as now and then there is a vista of Diamond Head, or of more distant hills. Yet the custom of years has given to Kapiolani Park a hold on the people's affection—barren or repulsive as much of it is.

A suggestion for ideal development here would doubtless require lovely lawns and flower gardens, where this work has been started; a jungle of tropical bloom along the lagoons, such as has been developed out of similar conditions of soil and climate on neighboring private grounds and such as travelers expect to find here; cool drives under arches of the overhanging algaroba, and in the center attractive play fields. But to obtain these desirable results, there would be need to expend a great deal of money. Indeed, the condition is to be frankly faced at once: Kapiolani Park needs, from some source or other, a large appropriation for improvement, and if it is to be made an ornamental, show park it requires a very large one.

My suggestions for immediate work at Kapiolani are as follows: Fill up all but the main lagoon. Laid out on perfectly straight lines, the lagoons are more like canals than natural

waterways and have no attractiveness in themselves. With the water in them foul and stagnant, they are something less than unattractive and the park should be freed of them. On the water borders of the lagoon remaining, put in some clusters of bamboo and pampas grass and carry on the shore planting, to soften the lines, to give a more natural look to the stream and to take away the aspect of a ditch. Screen the barns and various service buildings with a high hibiscus hedge. Extend, by further planting of algarobas, the arched drive, now in isolated sections a charming feature on the east and north circumference of the park, so that it may be continuous. Acquire, if practicable, the algaroba grove lying nearest the sea between the park and Diamond Head, and add it to the park. Everywhere open vistas through the trees, so that it may be possible to look across park meadows, to get an idea of the park's extent, and to bring into it as one of its chief charms views of the rugged grandeur of Diamond Head and of the high distant hills with their ever-changing shadows. Convert the race track grounds into play fields and golf links, and get the old grandstand out of sight as quickly as you can. In the front and more ornamental part of the grounds, do not be afraid of the open lawn. There is some attempt at it, but the planting is still "spotty" and there is much clearing out that ought yet to be done, the algarobas and crotons, where retained at all, needing to be gathered into clumps instead of left as they are, as individual specimens, scattered and misplaced. It will surprise you to see how much this will improve the grounds. Around the superintendent's house, shrubs should be planted, to wed the house to the lawn. The trolley poles, if they have to remain, may be made a less conspicuous misfortune if painted green and planted around the base with vines. The poles in the center of the grass walk on the ocean side of the street are an unpardonable intrusion and should be ordered out at once.

In making this list of suggestions and criticisms, I recognize that the present aspect is doubtless a vast improvement over that of the past, and I am glad to give credit for the

accomplishment of much, considering the conditions and the handicap of low appropriations. But it is my duty to tell you that if you want a handsome park there, or even a moderately good park, you must be prepared to expend a large sum of money. And what the park has been, I am not asked to consider; but what the park possessions of Honolulu might be. In making these suggestions, too, I have been as moderate as possible, indicating the park's further development along the lines already started, and making use of all the good there is.

With the purchase of the beach lots opposite Kapiolani Park, Honolulu has had done for it one of the best things that could be done. The great attraction of the lots is the beach and the water, and to make the latter available for bathing is the first and most important step. A house admirably adapted for a beach pavilion already stands on the property, and with the main emphasis on the waterfront there is not a great deal that needs to be done in the way of landscape design. This will naturally find its motif in bringing the lots into seeming unity with one another and with Kapiolani Park, so that the appearance of separate lots may be promptly done away with and Kapiolani Park will appear to extend, as it always should have, to the sea. The new addition definitely fixes, also, the character of this reservation as the public pleasure ground in your list of parks.

b. Scenic Reservations.

In a city like Honolulu,—of its size, with no large class of industrial operatives requiring outdoor physical exercise, and with views and natural scenery the great attraction of the city,—one good sized park is enough to develop distinctly as a pleasure-ground. To this purpose, as has been said, Kapiolani can be very properly devoted. But the city's need of scenic reservations, that the great viewpoints may be secured for all the people, is more than usually urgent. The case is one of large obligations involved by noble gifts and opportunities;

and as an individual could do no lovelier public work than to set aside a beautiful viewpoint for perpetual public enjoyment, it is to be hoped that some of these advantageous sites will be thus presented, as in other cities, to the community. What is not given, the people must secure for themselves through their representatives.

Happily, a comparatively large acreage can be set aside for this kind of park. It needs little landscape work, for the feature is the view, from which it is not desirable to distract attention; the cost of maintenance is at a minimum, because the park is to be left so largely in a natural state; the land generally costs little, since the most advantageous viewpoints are likely to be hills too steep or too high to be valuable as building sites; and its reservation deducts little from assessment totals. Thus there is no other kind of park that requires so little care and so little outlay and on the whole gives such satisfaction. The only embarrassment in Honolulu is the multitude of admirable sites. Following is my selection:

Beginning with the Pali, as the great scenic attraction of the island and one of the fine views of the world, there is already constructed a road for approach of which the county has reason to be proud. At the summit of the pass and for a considerable distance below, the area is a public reservation, under efficient charge. There is here, then, in fact, if not in name, a scenic park, and there is need of only a few finishing touches to make it what it ought to be. These include the provision of seats at advantageous points along the Pali road, that walking thither may be encouraged and made easier, and that the beautiful views on the way up and down may be suggested. Such points would be, among others, at the pool; at the turn after crossing the culvert, in the horseshoe curve, where the city and valley lie below, and at the extreme western turn higher up, where a noble view of the mountains is unfolded. Similarly, footpaths or trails should be made to points off the main road that offer exceptional outlooks, such as to the knoll near the new dam and to the knolls and natural ledges that are on either side of the road just at the summit,

and which disclose fine new views. At the summit there should be provided an appropriately designed shelter from rain and wind, and beneath the abrupt bank on the right there is a good site for a public convenience station. At the look-out the incongruous and hideous wooden fence should be removed to make way for a rough wall of lava rock that would fit into the scene. With these slight improvements, requiring little of the county, the Pali would take the high place in park lists to which it is entitled.

Proceeding Waikikiward, the next great outlook on which I would urge a public reservation is the so-called hotel site on the summit of Pacific Heights. Thence there is one of the most beautiful views to be had near Honolulu. One looks down upon Punchbowl, and the lovely Nuuanu valley is disclosed as from no other point. It would be a shame if the community suffered this outlook, now going seemingly to waste, to be fenced off in hotel grounds. The commonest criticism of the site as that for a park, or scenic reservation, is based on its inaccessibility. But an easy carriage road affording charming views leads to it in no more time from Fort and Hotel streets than one needs to go to Kapiolani Park, and because one cheaply constructed and dangerous electric road, that followed all the twistings of the carriage drive, has failed, there is no reason why a better built road, following a shorter course, and with the added attraction of a public park should not pay. Such a road would doubtless bring the suggested site thirty to fifty per cent. nearer in time to the center of the city than is Kapiolani Park. My opinion is that here is one of the most beautiful and available park sites of Honolulu, which is saying a great deal, and that the reason it has been so commonly overlooked is largely because the slopes of which it forms the crown are less attractive in contour than the striking and precipitous sides of Punchbowl or than the beautiful rolling hills or than the higher mountains beyond with their covering of trees.

The less precipitous sides, however, are an advantage; approaches, that only need repairs, are already built for

pedestrians and carriages; and water is available at once in ample volume. Since the other scenic reservations require very little money for their development, as this overlooks one of the best residential sections of the city, as it is convenient to the business district, and as natural conditions are so favorable that large results must come here from moderate expenditures, I recommend the development at this point of the "show" park. The view must always be its surpassing attraction; but the uneven grades invite terraces; lawns and flowers can easily be obtained, and outlooks are suggested by many a knoll and projection with its opening of differing views.

Should the park be located here, the road that climbs the hillside should be made an adequate park approach. Trees so planted along its borders as not to interfere with the view will not only make pleasanter the way but will do much to give beauty to the hill. As to a railroad to the summit, it ought not to follow the drive. A short cog wheel or balanced car road could be run up the precipitous Nuuanu side without marring the slope seen from the city, or at easier grade and offering better access to the houses that may be built on the Heights, could follow the green ravine in front. Thence its extension around the head of the valley, to give popular access to Tantalus, as was once proposed, should be accomplished with no great difficulty and with the unfolding of a wonderful panorama of views. Such work would be a making the most of the inspiring opportunities you have, a work that would contribute not less to the delight of the citizens of Oahu county than to that of tourists. The one danger in making readily accessible to the people such a great natural reservation as Tantalus is their possible abuse of it. But this could be prevented by strict guard, and it is to be remembered that the tract belongs to the people, that there can be no justice in making parks or public scenic reservations exclusive, and that very seldom, when the people are trusted, do they violate the trust by the injury of their own property.

As suggested by the foregoing, Tantalus is the next tract that I urge to have dedicated to public enjoyment as a scenic

reservation. You are too familiar with the beauty of the scene, with the delight of the long shady drive or walk through the forest reservation, with the novel charm and beauty of the natural forest higher up, with the lovely dells and glades between the ridges, with the loveliness of the broken landscape in its variety of development, with the splendor of the outlooks from every vantage point, to make it necessary for me to try to picture the scene as an argument in behalf of a park reservation there. The Tantalus park should be, with the far uncertainty of its further boundary as one looks across to other mountains, the one great park;—for Honolulu that bit of God's world that cities now are learning to secure and save for the people, that they may get close to nature, forgetting the fences and survey lines which civilization has thrown, like a network of prison walls, upon the world.

Think of how Boston has secured the Middlesex Fells and the Blue Hills; how New York, where land is so precious, has put aside Bronx Park with its twilight forest; how Chicago is planning for vast inland tracts, how Los Angeles has received from a citizen a gift of hills and woods in Griffith Park, how the State of New York is reserving the Adirondacks and the Catskills—think of these, and ask yourselves how their park availability is to be compared to that of Tantalus, with mountains, sea, and tropical forest, all close to the city, reached by good road and trail, and the property already of the people, except for such little house lots as the government has parted with—selling the public birthright for a cupful of porridge. It were absurd to have to argue for a park reservation on Tantalus. The place does its own arguing, for the spot is visibly a natural, God-given park; and I would show little respect for the intelligence of the people of Honolulu, and do scant honor to the Board of Supervisors, if I expended energy in pleading that this publicly owned tract, to obtain the like of which any city in the States would bond itself for millions, should be parted with no more. It is your right to insist upon that.

There are some practical questions, however, to be consid-

ered. My plea would be that the government, now controlling the property, make it a Government Park—just as States are putting aside their best scenic treasures for State parks and the Federal government is making National parks. It would be doing honor to itself in doing this; and how little this is to ask—where the land is already owned and does not have to be purchased. At best, or worst, there are few lots that could still be sold, and it is estimated that, if all these were disposed of, the government would receive only \$15,000—which, funded, would give the princely income of \$900 a year, in exchange for the people's enjoyment of such an estate. Better, if the government must have money out of Tantalus, that it put aside the land still held and reacquire, as opportunity offers, what it has now lost, and then lease to private parties—as does the State of New York in the Adirondacks—certain camping and bungalow rights. By so doing it could not only obtain a much better income; but it would be able to safeguard the whole property, choosing the campers and restricting their improvements and use of the sites to such things as could not injure the general landscape effect or bar the public from enjoying the park as a whole. If more money still were wished, there is a large area over which scientific forestry could be practiced.

But even to territories money is not everything. There are certain benefits that are more to be desired, and that, only indirectly economic, do bring in money returns—such as delighting residents, so that the territory grows in population; as delighting tourists, so that they return and others come; as offering opportunities for experiments in horticulture which result in increasing the productiveness, the charm and the wealth of the island; as giving to the people a place where tired nerves can rest and exhausted constitutions be reinvigorated—for this would be more than merely a scenic park. Reserve Tantalus, where there is need of little landscape work beyond cutting a few trails and, some day, making a new road which, skirting the slopes of Round Top and Sugar Loaf, shall reach the Manoa valley and render it unnecessary to

come and go by one way, and it is easy to foresee that these and other gains shall come. As to the makai limit of the reservation, I have examined the three lines proposed, by the Senate Committee, by the Research Club, and as a compromise. My only query is, Why the modesty of the lower line—why not save more? But my advice is, take all you can get now, wherever the line comes; and the park will justify itself and there will rise a popular demand for its extension such that it will be carried lower—though the delay may cost the community larger expense and some loss of beauty.

Coming next to Punchbowl, we reach a more strictly, in the sense of more intimately connected, town possession. Of this again the suitability for a scenic reservation, and even the obligation that rests upon the community thus to save it, needs no argument of mine. When the city is seen from afar, from the deck of an incoming steamer, this great high-shouldered mass, rising from the very midst of the houses, and overlooking sea, port, and the mountain valleys, presents itself as a natural park site. Never in the city does one get away from it, and among all the residents there seems but one opinion—Punchbowl for a park! What to do with it, however, and how best to make it available are questions that press for solution.

With propositions to transform it into a great bouquet of flowers—a sort of set piece—by clothing its sides with vines of brilliant bloom, I do not sympathize, even were such results immediately attainable. Any city may look for such an effect, and countless cities have it—as Los Angeles has it in the slopes at the entrance of Elysian Park, or as Rochester has it in Highland Park; but few are the cities that have an extinct volcano in their very center. Would one put baby blue ribbons on a giant, or paint an ocean vessel to resemble a birch-bark canoe? In the gaunt sides of Punchbowl and Diamond Head you have unique possessions, to be treasured, not hidden, and full of a beauty that is rare because it is all their own. What finer scenes near town than these when the low sun turns their brown slopes to gold? Don't be ashamed of them;

be proud of them. Throw all the verdure you desire around their bases, that they may be the more emphasized, but keep them the volcanic masses that they are.

For these reasons I can not endorse the suggested temple effect upon the summit. There are other hills where the beauty of white columns against a blue sky may be tried, if you will. Here the structure would needs be very costly, and massive in the near view to have adequate proportion from afar, were there no question of appropriateness; and for these reasons again I dislike the appearance of the trail—well as it is to have one—for it seems to tame or belittle the hill while making a scar upon it. Some algarobas that now cling here and there to the steep banks, indicate that a few others planted close to the trail, if humored a little at first, would doubtless grow, sheltering the hot, sunny path and softening its outline. For the rest, if there must be planting of any kind on the slopes, let the wild morning glory climb the steeps and try the *mesembryanthemum*—both vines which live and prosper on very little soil or moisture, and both flowers too modest to seem to be attempting to deck the dead volcano.

Within the crater, the rich soil and the protection from strong winds offer, when water shall be obtainable, an admirable site for horticultural and forestry experiments. My recommendation would be to give the care of this area to the Forestry Department, which must soon outgrow the cramped experimental grounds on King street, or to any similar association, that, in creating here, where the view is shut off, an attractive and interesting garden, would take over in this way the care of the greater part of the grounds and at the same time do a work that would be of value to county and islands. This would leave only the rim for strictly scenic-park purposes, where you would need to do little more than make trails, so reducing largely the cost of maintenance. A shelter also should be erected, but my advice would be to put it below the rim, that it might not show from any point in town, thus defending the height from artificial excrescences.

As to the approaches to Punchbowl, if the hill is to be used,

it is important to make them adequate. A long step toward this would be the extension of Prospect street. At about its present grade it should be carried around the west side of Punchbowl, following the irregular contour of the hill and so constantly presenting new and attractive views, until, passing above the little cottages, it strikes into Punchbowl road. Carried then, at the other end, over the gully, it would reach in a very short distance the east end of Punchbowl road, forming with it a complete circle around the hill and affording direct and attractive access from every part of the city. The extension of this street is so important for its park connection that I urge it in this portion of my report rather than in that which dealt with the opening of streets and tracts.

Diamond Head is so far from the city and there is so much pressing to be done nearer town, that I recommend no immediate expenditure there beyond that involved in opening suitable trails,—assuming that there is no need to urge the reservation of the area.

One other very small tract I should like to see dedicated to public enjoyment, and I will have done with my recommendations for parks of this kind—the kind which is of most significance to Honolulu. This is the rocky hill back of Oahu College. It offers a surprisingly beautiful view, is the natural park for the College Hills tract, and with its accessibility from Manoa road is in touch with a much larger section of the city. Its picturesquely rugged character requires no tampering with landscape designs, and thus practically no expense.

In the somewhat detailed discussion of these reservations, the list doubtless seems long, and more formidable than it really is in the expense involved. In running over the list, you have to remember that the Pali, much of Tantalus, all of Punchbowl and all of Diamond Head, are already out of the market so far as building sites are concerned; that the Pali requires absurdly little further expense to realize its most obvious opportunities, and none at all for maintenance; that the plan suggested for the Tantalus reserve would make it

a Territorial park, and as far as the Territory is involved of no net expense; that that proposed for Punchbowl would relieve the county of care of all except the slopes and rim—which want to be left pretty much alone; that no immediate expense is contemplated at Diamond Head; and finally that the public already has free access to the Rocky Hill in the College Tract. This leaves only, as items of considerable expense, the development of the Pacific Heights park—where every dollar of expenditure will give large returns,—and the extensions of Prospect street, in which the gain to the community is double, since it secures convenient access to a park, and a drive that in itself is beautiful.

Taking the list, then, in the aggregate, consider what a chain of scenic reservations this would be—all the best vantage points seized and held forever for the public, that never should the beautiful views which nature has spread before Honolulu and its guests be taken from them and fenced away. From Pali to Diamond Head, and back through Kapiolani Park, Main avenue and the Beach road to the waterside parks, water entrance and Union square there would be a girdle of majesty and beauty of which the city never could be robbed. That in itself would be a park system worth having, the like of which it would be hard to find, and remarkably practicable in its attainment.

I include the waterside parks in this list of scenic reservations, though the beach lots at Kapiolani Park will have in their bathing facilities a double value—being pleasure ground as well as scenic reservation. It is to be hoped and expected that as dredging in the harbor proceeds, filling in will take place at points along the Beach road. And I urge this so that there may be other waterside parklands. For the sea with its ceaseless change, its varying color, its panorama of shipping, is as strictly and attractively scenery as any mountain view. The development of these parks will be very easy. Some turf and palms, a few clumps of shrubs at corners, and plenty of seats that face the ocean—and your island people will be able

to get close to the sea, as is their right, to listen all day to his song and to feel again the salt spray.

c. Ornamental Open Spaces.

No park system, however well worth while, could make claim to completeness, had it only pleasure grounds and scenic reservations. The system does not perform its full function unless some of its members, entering into the very construction of the city, bear a part in beautifying. Such work as that proposed at Union square and at street intersections is the best type of this; but there are also plots, such as Emma square and Thomas square, that are set apart expressly for this purpose. Because their purpose is so predominantly aesthetic, they demand a special care in planning and maintaining.

Neither of these squares is good in landscape design. An open space of green lawn and shady trees is always gratifying in the network of city streets; but the squares ought to give more than that. Sunny Emma square is a cross between a lumberyard and an outdoor auditorium, and the more pretentious Thomas square in its plain lack of any comprehensive plan seems haphazard. If Young street is carried through, as proposed, some remodeling will be necessary. There should also be groups of shrubs at the corners, and a waving outline of them around the borders would shut away the street without shutting away the park, and add much to the attractiveness of the interior. Considering, too, the origin of this space, it would seem that a flag staff might well be made its dominating feature. The use of the square, by having paths that make short cuts through it, is as now to be encouraged.

In McKinley Park the community has practically title to a plot of ground capable of very interesting and attractive development. My idea of this park, centrally situated in a residential district that promises to increase rapidly in population, would be to make of it a pretty playfield suited to the needs of the population around it. Its level stretches should

include tennis courts, its borders should be beautified with shrubs and flowers, its fine views opened, and the clear waters of its lake made available for the boats of little children. The conditions too are singularly favorable for an aviary, should there be a desire to substitute that, wholly or in part, for the other treatment.

If the parks of this general character have value among the gardens of the rich and well-to-do, they are yet more needed where people are crowded together in tenements, where the commonest garden (if there be any) is a row of plants in pots and tubs, and where the streets have no attractiveness in themselves. Yet I find no open spaces of this kind on the Ewa side of Fort street.

There are several admirable sites for one. That which I favor is on both sides of King street, just beyond Liliha. Here, in the heart of a crowded tenement district, on an arterial street containing a much patronized carline, there is a broad vacant space, considerably below the street level and therefore wet and muddy much of the time, that is bisected by an open sewer in which the foul water long lies stagnant. To cover the drain, to fill the space, to grade and make a park, would be not only to create a beautiful breathing spot where it is much needed, but to destroy an eyesore and a menace to health. A park at this point should have bright flowers, for it would be among a people who love color and flowers; it should have pleasant winding walks, facilities for the play of little children, and ample accommodations for tired mothers where they could rest while their children play.

River street, running through a nearer crowded section, and yet more conspicuous, should be redeemed from its present barrenness and made attractive by the planting of a row of trees on the stream side of each roadway, at the curb line of the present stream sidewalk. Those of you who know the quays of Paris, where the river runs similarly between walls of masonry far below the level of the street, know how attractive this short space might be made. For here is a street something like 200 feet from lot line to lot line, with a small

walled stream running through its center, and all the rest of the space is abandoned to dusty, sunny roads, though for vehicle travel there would be ample provision with twenty feet on either side. The balance of the street, using the strip beside the stream for the purpose, should be parked. The trees ought to be planted at once.

Continuing up the stream, River street dwindles away into a by-path before it reaches School. Nature has a chance again, Big trees hang over the water, and the creek sings as it dances on its way around the stones, or leaps the little ledges. At School street the big masonry abutments of the bridge almost close in on the stream, leaving just room for a foot path close to the water and making a distinct division between the creek's upper and lower reaches. From School street down to the River street terminus, a block, there are some shacks and patches of garden. Above, it is still wild for a space of considerable breadth on each bank.

I like the suggestion of a Japanese garden on the stream; but I advise that it be confined to the one block between Vineyard and School streets, where the bridge makes the sharp division. This will give ample room, if put into competent Japanese hands, for the display of a very attractive and interesting example of Japanese landscape art: it will be, too, so close to the Oriental quarter that the Japanese themselves can enjoy it. This will give to it the added merit of appropriateness, which it could not have at Kapiolani Park; and while making a distinct and fitting park provision for a numerous class of Honolulu residents, it will have its own attractiveness and interest to strangers enormously increased by the spectacle of its actual use by the picturesque Japanese.

Beyond School street, with access from that street without the necessity of going through the Japanese garden unless one wished, and with access from each cross street, the banks of the Nuuanu stream should be preserved in their natural beauty with a footpath made to facilitate the enjoyment of the scene, at least as far as the avenue on the one branch and as Judd street on the other. There are no other short rural walks on

level within Honolulu, and this placid, peaceful scene with its lack of views is here more unique than sea and mountains. The strip is a lovely natural park, now almost unknown and its land unclaimed for other purposes.

With these additions, involving little expense except in the case of the King street plot, which would effect so great an improvement as amply to justify its establishment, the Honolulu park system would be complete in its geographical distribution. There would remain, however, one want to round out its social mission. This is children's playgrounds.

d. Playgrounds.

Several of these have been now established and one or two others are contemplated. They seem well located and my only suggestion is that a more distinctly playground development be given to them. Toilet rooms should be provided in these, as in every one of the parks—scenic, pleasure grounds, and all. They should have some simple outdoor gymnastic apparatus, such as parallel bars and traveling rings; there should be a section hedged off for the special use of the little children, and here the clean sea sand, which can be so easily provided, would be a delight. Wading ponds with concrete bottoms are proving an untiring source of pleasure in the newer playgrounds of the cities of the States, and good sociological work can be done if there be a play-director.

This fairly completes the study of the park system units, and there is need only to connect them and bring them into relation with one another.

To do this is the special function of boulevards and drives.

4. BOULEVARDS AND DRIVES.

It is clear that in such a city as Honolulu, where the climate gives delightful driving weather from year's end to year's end, and where all classes do drive, the boulevards must have a special importance. It is clear also that in the large acreage which it has been proposed to dedicate to park purposes, so

much driving opportunity is provided as to make it unnecessary that the boulevards and drives should do more than adequately connect the parks and form of the separate units a system.

The city is devoting most attention to the Waikiki road. I do not think this has been a wise choice, for it was possible to make a far finer approach to Waikiki out of the Beach road, or—if this was too far from much of the residential district, and hence roundabout—there might have been laid out, and may still be planned by modifying the street plattings of the Pinkham reclamation plan, a boulevard to Kapiolani Park that would have been very stunning with Diamond Head closing its vista at one end and Punchbowl closing it at the other. Kalakaua avenue, however, is a condition that must now be reckoned with, and it much needs attention. With the car track at the side, and for considerable distances views of one or other crater, I do not favor the center parking, though ordinarily this is the best parkway treatment. The width of the road is now eighty feet, and within this space the Rapid Transit Company has a right to lay a double track. The outside track is in place and occasional switches are on the strip that eventually will be covered by the second track. All the rest of the boulevard is a glaring expanse of dust.

Accepting the location of the track as a fixed condition, my recommendation is as follows: Mauka, from lot line to sidewalk, turf two feet. Sidewalk, six feet. Curblin to outside rail, in order to allow car step, 3 feet 3 inches, in turf. Track and right of way space, 20 feet 6 inches. Parking, three feet three inches. Then would come the road, or drive, thirty feet, which is fair boulevard width with the car tracks out of the way. Makai, parking seven feet. Walk, six feet. Walk line to lot line, in turf, two feet. The planting should follow the plan originated on Beacon Boulevard in Boston, and now widely followed. That is, the effort should be to "plant out" the car line. From mauka curb to line of roadway the whole space—between the rails, between the tracks, and all—should be planted with grass. On the strip of parking between the

present track and the roadway there should be shrubs, and if the second track is finally put in, another ten feet should be added to the width of the boulevard that there may still be room for parking and trees between tracks and road. The effect will be to put the cars into a long, narrow park all the time they are on Kalakaua avenue, extending the impression now given in front of Kapiolani Park, deadening the noise of the cars, eliminating the dust, and adding immensely to the pleasure of the trip for car passengers. Further practical advantages arising from this method of development are that, by using a trolley sprinkler, the strip can be kept watered easily and inexpensively; and that the second track can be omitted or added without injuring the effect. Makai, the strip of parking between curb and roadway must be similarly developed, with turf and shrubs and trees, so as to correspond with the other side, while an incidental gain here will be the separation of the walk from the glare and dust of the road. Taking the boulevard as a whole, with this continuous garden on either side and the tracks out of the way, it will be a delightful, appropriate and thoroughly adequate and creditable promenade and drive.

Of the avenue's extension to Beretania street, I have already spoken. Whether it starts there or at King street, the point should be fittingly marked as the beginning of the boulevard. My suggestion would be a high trellis, placed at right angles to the street axis, on each side of the road, and its planting with a luxuriant flowering vine—as the bougainvillea—that one may seem to enter it through a floral gateway. If the King street terminus be retained, and it prove impossible to remove the signs that now make hideous the vista and cheapen the structure that they cover, the vines might well be carried over the roadway on an arch, so screening the buildings in the distant view.

I have spoken of the Beach road as one of finer possibilities. The attractions of this as a scenic drive do not seem to be half appreciated. I would urge its development. It is now a direct line, as well as a beautiful way and one without car tracks,

from the business and westside districts to Waikiki. With half the attention put upon Kalakaua it ought soon to be the popular way. The development of your waterfront entrance, the close connection with the remodeled Union square, and the creation of waterside parks at favorable points along the Beach road, make it—with its own beauty of scenery—the ideal park connection with the city when it shall be properly extended to reach Kalakaua avenue. I recommend that it be planted on each side with coconut palms, which would thrive in the sandy soil, which would preserve the views of mountain and sea, and give to it a unique value while adding immensely to the picturesqueness and tropical attraction of the city's waterfront. Nothing could be finer than this road, following the long curves of the beach, when planted on each side with cocoanuts. What I have said in favor of planting out the car tracks on Kalakaua avenue, applies equally well to other wide streets, where the track is at the side. For Waialae road especially, I urge it, as this with its improvement becomes a link in the chain of boulevard and parkway connections. It is worth while to arrange these in order.

Starting at Union square, the outer circuit would be as follows: Richards street, the water entrance park, Beach road and its connections to Main avenue, Diamond Head road; then over a short space that has yet to be improved skirting the west side of the Kaimuki reservoir; Koko Head road, now parked in the center and offering views on the one side of the sea and Koko Head, on the other of the plains and the city, and with the mountains before; Waialae road to the proposed diagonal road leading into the Manoa valley; up that valley if one desired, or by Manoa road to Wilder avenue, to Punchbowl road and so to Punchbowl summit, or to Tantalus, and some day on around the head of the Pauoa valley to Pacific Heights Park, and then down to Nuuanu, and to the Pali or back to town. An inner loop would go out Beretania street to the extended Kalakaua avenue, to Kapiolani Park, and back by Kapahulu road to Beretania. But there are so many variations that can be given to the drives, the different loops touching at

such a number of points, that I have had made and submit herewith a photograph which shows on reduced scale the Moa-sarrat map, coloring on it the suggested park reservations and their connecting drives. This illustrates what an exceptionally fine system it is easily possible to make here. The one thing needed is the adoption of the plan, so that the progress of improvements will bring nearer, gradually but steadily, its realization.

In this connection one word more needs to be said. It would be a mistake to try to boulevard all these connections or to make them all boulevards and parkways. It is as important that the drives of the park system be varied as that the park units should be, and a good residential street with its pleasant private gardens, or a distinctly rural road with lovely wild growth along the wayside, is in its proper place as creditable and excellent and pleasant a park connection as could be a costly and formal boulevard. On roads of this character, where they traverse fine scenery—as most of yours will—seats should be provided at advantageous points, as I have already suggested for the Pali road; and it should everywhere be made a crime to deface rock or tree or earthen wall with lettering. In this connection, too, let me say that all the town parks—that is, the playgrounds, the ornamental spaces, the pleasure parks and the nearer scenic parks, such as Punchbowl and the summit of Pacific Heights together with their connecting parkways and boulevards—should be under one authority. That authority should be a park commission, responsible to the local government, (as to your body) rather than to the Territory.

CONCLUSION.

With the discussion of the drives, the survey of Honolulu and its improvement is concluded. It has been a pleasant task, where nature has done so much and where the citizens are so ready to work for Honolulu's good, to point out how the city may be improved. There is the chance, at wonderfully little expenditure—so lavish are the gifts of beauty that

have been showered upon it—to make this one of the most picturesque and beautiful cities of the world—all one great park, with a city tucked in between, in the vacant spaces. And there seems to be the will. It is a pleasure to tell you that I nowhere have seen more universal evidences of public spirit than here. The gifts of God have not spoiled you, but have wakened you to the wish to deserve them. I believe you will do that by the improvement of your opportunities and I am proud to have had this chance to connect my name in some degree with the making of such a park-city.

Where so many have been kind, in hospitality, in courtesies of every sort, and in coöperation, I can not attempt to give names. My expression of appreciation, and of obligation, must be taken personally to heart by each.

Respectfully submitted,

CHARLES MULFORD ROBINSON.

March 14, 1906.

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The first part of the paper is devoted to a discussion of the
 various methods which have been employed for the determination of
 the rate of reaction. It is found that the most reliable method
 is that of measuring the change in concentration of one of the
 reactants or products. This method is applicable to all reactions
 in which the concentration of one of the reactants or products
 can be measured. The rate of reaction is then calculated from
 the change in concentration divided by the time interval over
 which the change occurs. The rate of reaction is usually expressed
 in terms of the change in concentration per unit time. The rate
 of reaction is a function of the concentration of the reactants
 and the temperature. The rate of reaction is also a function of
 the nature of the catalyst. The rate of reaction is also a function
 of the surface area of the solid reactants. The rate of reaction
 is also a function of the pressure of the gaseous reactants. The
 rate of reaction is also a function of the volume of the liquid
 reactants. The rate of reaction is also a function of the nature of
 the solvent. The rate of reaction is also a function of the nature
 of the reaction medium. The rate of reaction is also a function of
 the nature of the reaction conditions. The rate of reaction is also
 a function of the nature of the reaction products. The rate of
 reaction is also a function of the nature of the reaction system.

The second part of the paper is devoted to a discussion of the
 various factors which influence the rate of reaction. It is found
 that the most important factors are the concentration of the
 reactants, the temperature, the nature of the catalyst, the surface
 area of the solid reactants, the pressure of the gaseous reactants,
 the volume of the liquid reactants, the nature of the solvent,
 the nature of the reaction medium, the nature of the reaction
 conditions, the nature of the reaction products, the nature of the
 reaction system, and the nature of the reaction environment.

The third part of the paper is devoted to a discussion of the
 various methods which have been employed for the determination of
 the order of reaction. It is found that the most reliable method
 is that of measuring the change in concentration of one of the
 reactants or products. This method is applicable to all reactions
 in which the concentration of one of the reactants or products
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 reaction system, and the nature of the reaction environment.

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